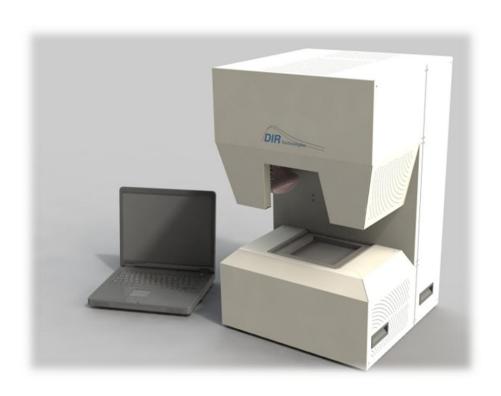


Drug Authentication System



Dynamic Infra-Red (DIR) Technologies develops and manufactures thermographybased comprehensive solutions for pharmaceutical authentication and analysis.

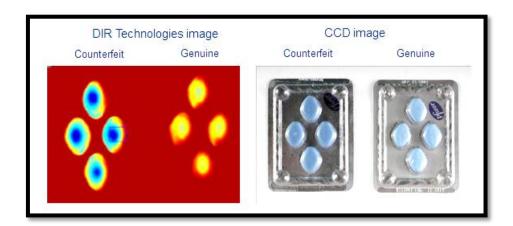
Drug counterfeiting is an increasing, global problem that affects the health of individuals, national economies and Intellectual property rights. Counterfeits are becoming more and more sophisticated, and there is a real need to develop tools that will improve our capability to fight against this plague.

Introducing Black Eye

Black Eye is a complete table-top system that enables rapid and accurate detection of counterfeit pharmaceutical products.

Black Eye operation is based on the proprietary Dynamic Thermography technology of DIR Technologies. The principle of operation is that Black Eye compares the dynamic thermal signature of an authentic specimen that is recorded in the system library, with the data acquired from the specimen under test.

Black Eye clearly differentiates authentic specimens from counterfeit ones, without damaging the original tablet, blister or package. Within minutes, multiple samples can be classified as genuine or counterfeit.



Distinguishing genuine VIAGRA ® blister from fake blister. In the image on the right, it is difficult to differentiate between the two samples. In the image on the left, the genuine and counterfeit samples are classified and displayed in unique colors.





Operation of the Black Eye is simple and straightforward. The GUI (Graphic User Interface) is friendly and self-explained.

Advantages of Black Eye

- Nondestructive
- Fast and accurate
- Multilevel testing: tablet, capsule, blister, package
- Easy to operate
- True/False output

Who should use it?

- Customs and main post offices
- Analytical and forensic laboratories
- Drug distributors and warehouses
- Hospitals and clinics
- Security forces

Contact us for additional information

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Main Specifications

System Blocks:

Black Eye main system Digital Balance PC Computer Computer monitor

Main Components:

IR Detector Type InSb, 640 x 480 pixels, 15 μm pitch, Stirling Cooled

 $\begin{array}{lll} \text{IR Detector sensitivity} & 20 \text{ mK} \\ \text{IR Spectral range} & 3-5 \text{ } \mu\text{m} \\ \text{IR Optics} & \text{Ge, f/1.5} \\ \text{CCD Camera} & \text{Pixeling 778} \\ \end{array}$

Black Body CI Systems SR800R-7A Lamps Infrared 100W Sylvania

Digital Balance Kern PFB

Computer Dell Optiplex 990

Monitor Samsung Sync Master 2333

Mechanical Jigs Pills Jig, Standard or Customized Blister Jig (1)
Software Black Eye operation and analyze system, with GUI and

proprietary protocols

Test types:

Pills, Capsules A minimum of 4 simultaneous pills are required to

obtain the best results.

Carton Packages Optional (should be customized on request)
Flasks Optional (should be customized on request)

Requirements:

Connectivity Ethernet⁽²⁾

Power requirements 220-240 VAC, 60Hz

Standard Plug type European

Operating environment Temp. 18-28°C, Humidity < 80%

Physical:

Dimensions 46(w) x 46(d) x 73(h)

Not including computer, monitor and balance

Weight 70Kg

- (1) User should send the intended blister samples in advance for tooling of the jig at DIR.
- (2) Ethernet communication through the internet is required for maintenance of the system and for upgrade of protocols and thermal signatures. User should be responsible for the Internet connection.

